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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Masataka Ohta

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EXAMINER

WONGWIAN, PHUTTHIWAT

ART UNIT

PAPER NUMBER

3741

MAIL DATE

DELIVERY MODE

03/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,927	Applicant(s) OHTA ET AL.	
	Examiner PHUTTHIWAT WONGWIAN	Art Unit 3741	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 and 18-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/22/2005, 03/13/2007, 06/30/2008, 02/17/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is responsive to the amendment filed on 02/17/2009. Claims 1-57 are currently pending in this application.

Election/Restrictions

2. Applicant's election with traverse of species IX, Figure 11 reads on claims 16, 17, 25, 26, 36 and 44 in the reply filed on 02/17/2009 is acknowledged. The traversal is on the ground(s) that species IX, Figure 11 reads on claims 16, 17, 25, 26, 36 and 44. This is not found persuasive because the limitation "the flame-stability-enhancing fuel supply channels" as claimed in claims 25, 26, 36 and 44 reads on species III, IV and V (fig. 4, 5, 6) as can be found on page 17, paragraph 3 of the specification, "the flame-stabilizing fuel channel 23", therefore, claims 25, 26, 36 and 44 are withdrawn from consideration.

The requirement is still deemed proper and is therefore made **FINAL**.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claim 17 when theta is 0 degree (not a cone) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. Figures 20-21 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

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applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

Page 30, "cylinder 32" should be changed to "cylinder 43".

Page 30, "width lx" should be changed to "width l".

Appropriate correction is required.

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 16 and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term "cone" in claims 16 and 17 and in the specification can not be used when the angle theta is 0 degree because it is cylindrical.

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9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. In claim 16, the limitation, "a tapered portion of inner circumference" should be changed to "a tapered portion of an inner circumference".

12. In claim 16, the limitation, "the tapered portion of inner circumference" on page 7, should be changed to "the tapered portion of the inner circumference".

13. In claim 17, the limitation, "the tapered portion of inner circumference" should be changed to "the tapered portion of the inner circumference".

14. In claims 16 and 17, the limitations, "a cone" after line 11 on page 6, should be changed to "the cone" because the drawing (fig. 11) only shows a single cone.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

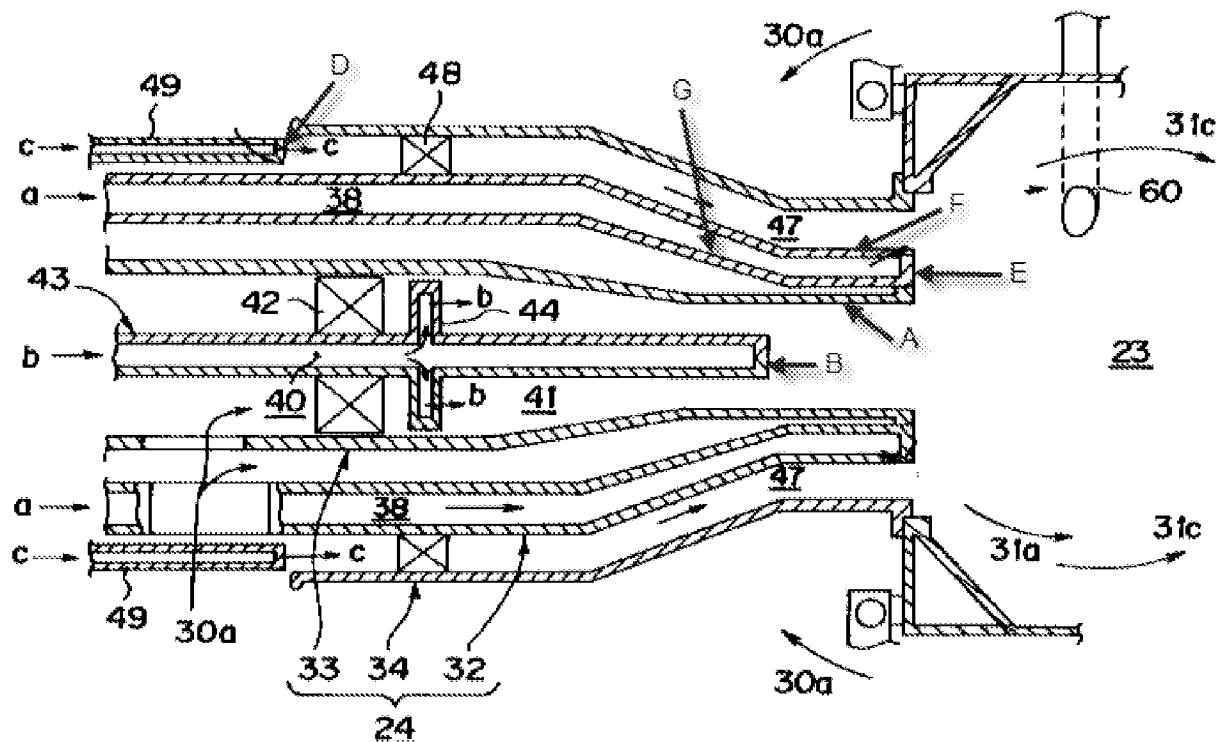


FIG. 2

16. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwai (US Patent No. 6,070,411).

17. As to claims 16 and 17, Iwai discloses a combustor 20 (fig. 1) comprising: a pilot nozzle 43 (fig. 2) being provided in a center portion (fig. 1) of a combustor main body 22 (fig. 1); a plurality of main nozzles 49 (fig. 2) being provided in a surrounding area of the pilot nozzle at regular intervals; a pilot cone A (fig. 2 above, when the angle is 0 degree) covering a downstream-side tip portion B (fig. 2 above) where a fuel b (fig. 2) of the pilot

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nozzle flows; and main burners 47 (fig. 2) covering downstream-side tip portions D (fig. 2 above) of the main nozzles 49 (fig. 2); and wherein, the pilot cone comprises: a tapered portion A (fig. 2 above) of inner circumference of the cone A (fig. 2 above, when the angle is 0 degree) being formed in a tapered shape so as to stretch out in a radial pattern toward a downstream side; and a collar portion E (fig. 2 above) which is provided to an external periphery of a downstream-side tip E (fig. 2 above) of the tapered portion of inner circumference of a cone and serves as [intended use] a surface being approximately vertical to axial direction of the said pilot nozzle; and wherein, an angle (any angle, inherent) in axial direction to a line (any line) connecting an external periphery of a downstream-side tip of the pilot nozzle and an external periphery of downstream-side tips of the main burners is specified as " α ," an opening angle of the tapered portion of inner circumference of a cone " θ " is " $0 \leq \theta \leq 2\alpha$." (when the angle is 0 degree) wherein, an outer circumference F (fig. 2 above) of the tapered portion of inner circumference of a cone is provided with a cylinder (fig. 1-2) being shaped so as to be along an outer wall G (fig. 2 above) of the tapered portion A (fig. 2 above) of inner circumference of the cone and the collar portion.

Conclusion

Applicant is duly reminded that a complete response must satisfy the requirements of 37 C.F. R. 1.111, including: "The reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. A general allegation that the claims

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“define a patentable invention” without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section. Moreover, “The prompt development of a clear Issue requires that the replies of the applicant meet the objections to and rejections of the claims.” Applicant should also specifically point out the support for any amendments made to the disclosure. See MPEP 2163.06 II(A), MPEP 2163.06 and MPEP 714.02. The "disclosure" includes the claims, the specification and the drawings.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUTTHIWAT WONGWIAN whose telephone number is 571-270-5426. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL A. CUFF can be reached on 571-272-6778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. W./

Examiner, Art Unit 3741

/Michael Cuff/

Supervisory Patent Examiner, Art Unit 3741